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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Michel Evin

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EXAMINER

TROUTMAN, MATTHEW D

ART UNIT

PAPER NUMBER

3671

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/585,518	<b>Applicant(s)</b> EVIN, MICHEL	
	<b>Examiner</b> MATTHEW D. TROUTMAN	<b>Art Unit</b> 3671	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 July 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "1" has been used to designate both chassis and support in Figs. 1 and 2. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

2. The disclosure is objected to because of the following informalities: The disclosure lacks headings for the sections of the specification present. The list of section headings is incorporated below.

Appropriate correction is required.

### **Content of Specification**

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and

descriptive, preferably from two to seven words may not contain more than 500 characters.

- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) The Names Of The Parties To A Joint Research Agreement: See 37 CFR 1.71(g).
- (e) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.
- (f) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
  - (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
  - (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."
- (g) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in

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general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.

- (h) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (i) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.
- (j) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).
- (k) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).
- (l) Sequence Listing. See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

***Claim Objections***

3. Claim 1 objected to because of the following informalities: the phrase "without increase substantially the size as to length" is grammatically incorrect, it is possible Applicant intended to say "without substantially increasing the length". Appropriate correction is required.
4. Claim 8 objected to because of the following informalities: Applicant has failed to include the claim number upon which dependency is claimed in the amended claim; for purposes of examination, and to maintain consistency with other amended claims, the claim will be treated as though it is dependent upon Claim 1. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:  

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
6. Regarding claims 1, 2, 4, 9 and 10, the phrases "preferably" and "such as" render the claims indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).
7. Regarding claim 1, it is unclear what is meant by the phrase "a value  $\beta_1$  of the opening angle considered as optimum in a position corresponding to a position of least size as to length of the supports" and what limitation it provides to the claim; it is unclear what limitations the phrase "without complicating the disc-support connection" constitutes.

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8. Regarding claims 5 and 6, the claimed position of the support members "in front" of the chassis (claim 5) or machine (claim 6) and "behind" the chassis (claim 5) or machine (claim 6) are inconsistent with Applicant's drawings and disclosure in that the support members are seen to be in front of and behind each other or towards the front of the chassis/machine and toward the back of the chassis/machine but are not positioned in front of or behind the chassis/machine in any aspect.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-4, 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,423,789 – Anderson et al. in view of US 687,259 – Packham et al. in view US 5,458,203 – Evers.

Regarding claim 1, Anderson teaches:

A machine for working the soil, comprising:

A chassis (12), pulled by a three-point hitch of a tractor, provided with plowing tools formed by a front series (48) and a rear series (50) of non-driven rotatable discs (60, 88), so as to work the soil at a constant depth (held at a constant depth by three-point hitch and frame components);

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Characterized in that the supports of the disk gangs are pivotally connected to the chassis to pivot about a vertical axis (at 74 and unlabeled pivotal connection of 50) so as to adjust the value of the opening angle within a predetermined angle (Fig. 2 - opening angle A is adjustable between approx.  $0^{\circ}$ - $20^{\circ}$  (Col. 3 - line 1-4)), (this attachment and adjustment is considered to be without substantially increasing the length of the assembly and without complicating the disc-support connection).

Anderson lacks wherein the discs are attached to the support by a safety device. Packham teaches a machine for working the soil wherein the discs are attached to the support by a safety device (f and spring attached thereto).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Anderson to attach the discs with a safety device as Packham has taught it to be old and well known in the art to attach discs individually by means of a safety device for allowing vertical movement when an obstruction is encountered.

Anderson in view of Packham lacks wherein the disc is rotated at an angle to the support.

Evers teaches a machine for working the soil on which the discs (6) at an angle (b) to the support (26) that is at least  $2^{\circ}$  (angle shown in Fig. 5 is at least  $2^{\circ}$ ).



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It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Anderson in view of Packham to include wherein the discs are rotated at an angle to the support member as Evers has taught it to be old and well known in the art to arrange the discs at an angle to the longitudinal axis of the support member.

Regarding claim 2, Anderson further teaches:

Wherein the supports are movable within an angular range of at least  $2^{\circ}$  (Col. 3 - lines 1-4).

Regarding claim 3, Anderson in view of Packham in view of Evers further teaches:

Wherein the angle between the support and the rotation of the disc is within  $3^{\circ}$ - $4^{\circ}$  of about  $20^{\circ}$  (Evers - Col. 4 lines 19-20 - angle b is selected like angle a - Col. 3 - line 67 - wherein angle a is  $20^{\circ}$  - therefore it is seen that angle b is also selected like a to be  $20^{\circ}$ ).

Regarding claim 4, Anderson further teaches:

Wherein the support is pivotally driven by a control member (Col. 3 - lines 21-24).

Regarding claim 7, Anderson further teaches:

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The discs being concave and of a large diameter (60 shown to be concave and considered to be a "large" diameter) and wherein the discs are reverse concavity from one another (discs on 48 are reverse from discs on 50).

Regarding claim 10, Anderson in view of Packham in view of Evers further teaches:

Wherein the safety device constitutes a spring (Packham - Page 1 - lines 90-93).

11. Claim 5 rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson in view of Packham in view of Evers as applied to claim 1 above, and further in view of St. Regis Paper Co. v. Bemis Co., 193 USPQ 8.

Regarding claim 5 as best understood, Anderson further teaches:

Two support members (48, 50) on in front of the other, each extending over a working width of the machine (working width considered the area covered by each support), being coupled by a pivotal connection (48 connected at 74, 50 connected at unlabeled pivotal connection) to a cross piece (20), the cross piece extending between two longitudinal bars (16, 18) of the chassis.

Anderson in view of lacks wherein the rear support is connected to a cross piece.

It would have been obvious to a person of ordinary skill in the art to modify

Anderson in view of Packham in view of Evers to include a second cross piece for attaching the rear support as Anderson has taught this type of connection and

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further because it has been held that mere duplication of the essential working parts of a device involves only routine skilled the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

12. Claim 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson in view of Packham in view of Evers as applied to claim 1 above, and further in view of US 4,180,135 - Birkenbach et al.

Regarding claim 6, Anderson further teaches connecting the support member substantially in the medial portion of the support (74 in the medial portion of 48). Anderson in view of Packham in view of Evers lacks wherein the machine comprises two supports in the front of the machine and two supports in the rear of the machine.

Birkenbach teaches a machine for working the soil comprising two supports in the front of the machine (front left and right 74) and two rear supports (rear left and right 74).

It would have been obvious to a person of ordinary skill in the art to modify Anderson in view of Packham in view of Evers to include the second front and rear support as Birkenbach has taught it to be old and well known in the art to provide multiple supports on the left and right side of the soil working machine for increasing the width of soil worked.

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13. Claim 8 rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson in view of Packham in view of Evers as applied to claim 1 above, and further in view of US 3,878,901 - Roberston, Sr.

Regarding claim 8, Anderson in view of Packham in view of Evers is silent as to the camber angle of the discs.

Robertson, Sr. teaches:

A soil working machine wherein the front gang frames (246 and 246a), the rear gang frames (330 and 330a), and the supporting means for the gang discs are so designed that a slight camber is given to the gangs of discs (Col. 12 - lines 38-47).

It would have been obvious to a person of ordinary skill in the art to modify Anderson in view of Packham in view of Evers to include a slight camber on the discs as Roberston, Sr. has taught it to be old and well known in the art to put a slight camber on the discs on for working the soil.

The combination lacks the specified range.

As concerns Applicant's specified range , it would have been an obvious matter of design choice to modify the combination to include the range of 3°-20° since applicant has not disclosed that these ranges solve any particular problem or purpose and it appears other similar ranges would work equally well.

Furthermore, routine experimentation would lead one of ordinary skill in the art to these ranges.

14. Claim 9 rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson in view of Packham in view of Evers as applied to claim 1 above, and further in view of US 4,542,793 - Dietrich, Sr.

Regarding claim 9, Anderson in view of Packham in view of Evers lacks the rear reference member behind the discs.

Dietrich, Sr. teaches:

A soil working machine with a reference member (wheels 19, 20) positioned behind the rear set of discs (as shown in Fig. 1) for controlling the depth of engagement of the discs.

It would have been obvious to a person of ordinary skill in the art to modify Anderson in view of Packham in view of Evers to include a reference member behind the rear set of discs as Dietrich, Sr. has taught it to be old and well known in the art for positioning a reference member behind the discs for controlling the engagement depth of the discs.

### ***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW D. TROUTMAN whose telephone number is (571)270-3654. The examiner can normally be reached on Monday through Friday 7:30am to 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Will can be reached on (571) 272-6998. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas B Will/  
Supervisory Patent Examiner  
Art Unit 3671

/M.D.T./